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EXAMINER

BLOUNT, STEVEN

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 09/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/477,298

Applicant(s)

Pearce et al

Examiner

Blount

Group Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 6/27/03
- ☒ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-49 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-49 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 4
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4 - 11, 14 - 23, 26 - 31, 34 - 40, and 42 - 43, and 46 - 49 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,259,701 to Shur et al.

With regard to claim 1, Shur et al teach a method of establishing a multicast communications session comprising sending multicast media to a group address (col 2 line 57; note also the multicast group address in col 4 lines 33 - 40, and the multicast/unicast servers 120 and 121 in figure 1) and communicating the media to a unicast device to enable a multicast communications session. Shur et al do not however teach the members at the receiving ends to be telephony devices per se, although they do teach computer terminals 110, etc. in figure 1.

The substitution of telephony devices for computer terminals in this example is an exchange of well known equivalents in view of the well developed state of the art of carrying voice over Internet telephony and the fact that many computers now allow for the capability of plugging in microphones (in conjunction with their speakers) to allow for conversation. Further, the examiner notes that in applicants invention (see fig 1, members 42 and 44), telephones and

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computers are both applied. The examiner notes that in col 4, lines 23+, the use of a "Visual conference tool" is discussed.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have used telephone devices in place of the computer terminals in Schur et al, in view of this state of the art, in order to carry out an "audio" communication over a network.

It is noted that the implementation of the MUS (see col 1, line 55) is the equivalent of generating a multicast intermediary.

With regard to claim 4, since it is a "conference", Shur et al's teaching of sending multicast media to the intermediary must work in reverse, such that unicast must be able to be sent to multicast.

With regard to claim 5, associating the first logical port of the intermediary with a unicast device and modifying source address received in the received media to specify a second logical port of the intermediary associated with the multicast group address is taught in figure 1, wherein the member 120 is interfaced with members 113 and 102, and note also the address translation (described in col 3 lines ⁴33+, col 4 lines 38+, col 5 lines 9+) the mention of the unicast address on the MUS, and the discussion of UDP sockets in col 7 lines 64+ and also col 8 lines 5+.

With regard to claim 6, association of the unicast device with the intermediary comprising use of a UDP logical port is taught in col 7 lines 64+.

With regard to claim 7, modifying source and port information: see col 8 lines 5+ and note that this is well known.

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With regard to claim 8, applicant is requested to see figure 1 and observe that the connection UR - UR between members 112 and 113 allows unicast - unicast communication, whereas the connection 113 - 102 would require by its very function that a member 120 (MUS) be provided in order to provide the necessary address conversion, and members communicating through member 113 would recognize that it is not possible to communicate from unicast to multicast or vice versa without a member 120. Note also the operation of 206 in col 4, lines 5+.

With regard to claim 9, two multicast devices 103/104 are shown in figure 1.

With regard to claim 10, the flow chart in figure 4 shows steps such as 407 where client selection occurs and 409 (push button) which would require the unicast device be placed on hold.

With regard to the following claims, note the following, in addition to the preceding rejections:

Cl 11: plurality of terminals 103, 104 (fig 1), as noted above, unicast member 113, multicast member 102, mus member 120 providing unicast to multicast communication; Cl 14: see above, and note the MUS receives information from 113 and provides it to 102; Cl 15: a "call manager" is mentioned in col 4, line 16 (http server 206) which is used to initiate the session, and it is also noted that it is within the MUS server; Cl 16: the MUS is a logical device coupled to the network which uses software to operate members such as 204 in figure 2 and also member 206 in figure 2. It is noted that the use of the MUS discussed in col 1, lines 55+ is provided in response to the fact that the unicast device cannot receive multicast media streaming.

Cl 17: The abstract, line 3, states that IP is used on both multicast and unicast networks.

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Cl 18: RTP for multicast streaming is taught in col 6, line 51; Cl 19: multiple terminals are shown in figure 1 suggesting a conference, and also, a "Conference Visual Tool" is taught in col 4, line 24; Cl 20: the "placed on hold" limitation is discussed above (claim 10); Cl 21: note the rejection of claim 1, and further note the plurality of terminals 111, 103, and 104, and note that there are two MUS devices (120 and 121); Cl 22: both MUS devices can receive unicast information and communicate it to the multicast group address as noted above; note also that the use of the MUS discussed in col 1, lines 55+ is provided in response to the fact that the unicast device cannot receive multicast media streaming. Cl 23: note the two MUS devices, and also the discussion of member 206 above; Cl 26: see the rejection of claim 16 above; Cl 27: see line 3 of the abstract where IP is discussed; Cl 28: See col 6 line 50 where RTP is discussed; Cl 29: a Visual Conference Tool is mentioned in col 4, line 24; Cl 30: as discussed with respect to claim 20, placing the unicast devices on hold is inherent to the process steps such as 506 shown in figure 5; Cl 31: as noted above, the operation of the MUS's 201 is carried out through stored software (this applies to the rejection of claims 32 - 39 which follow); note also that the use of the MUS discussed in col 1, lines 55+ is provided in response to the fact that the unicast device cannot receive multicast media streaming. Cl 34: see the rejection of claim 31, and note that receiving unicast media and transmitting it to the multicast group address is taught in Shur et al as described with respect to claim 4; Cl 35: see the rejection of claim 5 above, and note the fact that the functions of member 201 in figure 2 are carried out using software as noted above; Cl 36: UDP is taught in col 4 last line and col 5, and IP is taught in the abstract, lines 3+; Cl 37:

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changing information in the packet is taught in col 8 lines 5+; Cl 38: a Visual Conference Tool is taught in col 4, lines 24+; Cl 39: see the rejections above, including the use of software in the MUS, and note also figure 4, steps 407+.

Cl 40: note the plurality of multicast devices 111, 103, 104, etc, and further note that member 120 (and its constituent component 206) is essentially a “call manager” that establishes a communication session for member 102; Cl 42: see the rejection of the claims noted above which discuss figure 4 and its relation to putting one of the media stations (in this case, members 103, 104, etc.) on hold; Cl 43: member 120 receives media from multicast network 102 as shown in figure 1, and communicates it to members 111 also as shown, to enable a unicast communication device to participate in a communication with a multicast communication device; note also that the use of the MUS discussed in col 1, lines 55+ is provided in response to the fact that the unicast device cannot receive multicast media streaming. Cl 46: see the interface between members 113/120 and 120/103 in figure 1 and also see the discussion of the relevant ports in col 7 lines 67+ and further note the rejection of claim 1 above, especially the pertinent portions mentioned concerning address translation: col 3 lines 33+, col 4 lines 38+, col 5 lines 9+; Cl 47: the MUS communicates the information to the unicast members 113, etc. as shown in figure 1; Cl 48: UDP ports are discussed in col 7, lines 63+; Cl 49: modification of the packets (and the headers, where it is well known that the addresses are located there) is taught, as mentioned previously, in col 8, lines 5+.

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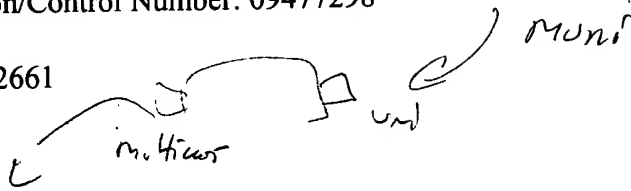
3. Claims 2, 12, 24, 32, and 44 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,259,701 to Shur et al as applied to claim 1 above, and further in view of U.S. patent 6,477,169 to Angle et al.

With regard to claim 2, Shur et al teach the invention as described above, but do not teach sorting the media at the intermediary. Angle et al teach sorting multicast data in order to provide a schedule. See col 2, lines 20 - 33. It would have been obvious to one of ordinary skill in the art at the time of the invention to have sorted the multicast data of Shur et al, in light of the teachings of Angle et al, in order to provide a means for directing the multicast data to the proper conference member. With regard to claim 12, as noted above, the intermediary is capable of sorting the multicast media. With regard to claim 24, sorting would be accomplished in both the first and second intermediaries; With regard to claim 32, note the rejection of claim 12 above with regard to sorting, and further note that this function is also implementable on a computer program. With regard to claim 44, see the rejection of claim 12, and note that in view of this rejection, the intermediary is capable of sorting the multicast information as well.

It is noted that claim 2 is read broadly to include sorting "based on the originating telephony device", wherein in Angle teaches sorting "based on" the information from the device that sent multicast information.

4. Claims 3, 13, 25, 33, and 41 and 45 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,259,701 to Shur et al as applied to claim 1 above, and further in view of U.S. patent 5,963,547 to O'Neil et al.

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With regard to claim 3, Shur et al teach the invention as described above, but do not teach mixing the media at the intermediary. O'Neil et al teach mixing multicast data in order to "produce a broadcast audio mix" for a conference. See col 4, lines 5+ and the abstract. It would have been obvious to one of ordinary skill in the art at the time of the invention to have mixed the multicast data of Shur et al, in light of the teachings of O'Neil et al, in order to help facilitate the conference call. With regard to claim 13, see the rejection immediately above with respect to the intermediary being able to mix the multicast media. With regard to claim 25, the first and second intermediaries would be capable of mixing the data; with regard to claim 33, the mixing function taught in O'Neil is implementable in computer software, and with regard to claim 41, receiving and summing the multicast information is taught in column 4, lines 5+.

Response to Arguments

5. Applicant's arguments filed 6/27/03 have been fully considered but they are not persuasive.

The response to the claims as amended may be found in the rejections above. Applicants arguments will be addressed in the order in which they were presented.

Shur discloses generating a multicast intermediary as noted above. Applicant has even admitted that "Virtual telephony devices may be logically inserted between two or more IP telephony devices...Once such a relationship is set up, signaling and media streaming that passes through the virtual telephony device may then be modified through address translation or data stream manipulation for various reasons before

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they are sent on to the destination device. Reasons for such modifications include providing network security, duplicating streams, dynamically redirecting streams, maintaining connections between devices, converting between data formats (eg, A-Law to u-Law), and injecting media". (Page 14, lines 15 - 26 of the specification). The examiner is actually a bit puzzled about how the phrase "generating a virtual multicast intermediary" is being used, since all of the software and hardware required to implement it is already present, and in the strict sense of the word, nothing is really "generated"; rather, the system in place is instead "implemented" in response to line conditions requiring a multicast session. In this respect, the applicants invention does not differ in any way from Shur, certainly not enough to deem claim 1 allowable over the prior art. It is obvious that the MUS shown in figure 2 has logical ports. It is well known that claims are to be given their broadest reasonable interpretation during prosecution. In view of this fact, at least the MUS 120 can be considered to be a call manager. Applicant has noted that "telephony devices" are not taught in Shur. However, the use of an "Audio Visual Tool" is taught in col 4, lines 23+, and in this should be considered in combination with the well known fact that VOIP carries telephone conversations in applications such as conferencing. Also, ISDN and modems are discussed in col 6, lines 64+. Shur teaches placing a call on hold, wherein it would be obvious to include a unicast call. Shur/Angle teach sorting the media, and Shur/Angle/O'neil teach mixing

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the media. Multicast media is taught in Shur et al, and with reference to streaming, see the discussion above (including col 4, lines 20+).

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CAR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

7. Examiner Blount may be contacted at the Patent Office between the hours of 9:00 am to 5:30 P.M. Monday through Friday. His phone number is (703) 305-0319.

SB

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9/15/03

Blount